

**STATE OF MAINE**

**DEPARTMENT OF MARINE RESOURCES**

<b>IN THE MATTER OF THE APPLICATION OF</b>	)	
<b>AQUA FARMS LIMITED LIABILITY COMPANY (LLC)</b>	)	
<b>FOR A LIMITED-PURPOSE AQUACULTURE LEASE</b>	)	<b>FINDINGS OF FACT,</b>
<b>LOCATED SOUTHEAST OF CLAPBOARD ISLAND</b>	)	<b>CONCLUSIONS OF LAW</b>
<b>FALMOUTH, CUMBERLAND COUNTY, MAINE</b>	)	<b>AND DECISION</b>

On May 30, 2000, Aqua Farms Limited Liability Company (LLC), of South Portland, Maine, applied for a limited-purpose aquaculture lease totaling 1.66 acres of coastal waters of the State of Maine, located southeast of Clapboard Island, Falmouth, Cumberland County, Maine. The applicant requested the lease for a term of three years for the purpose of cultivating the blue mussel, (Mytilus edulis), using suspended culture techniques.

Approval of limited-purpose aquaculture leases is governed by 12 M.R.S.A. §6072-A. This statute provides that the Commissioner of the Department of Marine Resources (DMR) may grant a lease if he determines that the project will not unreasonably interfere with the ingress and egress of riparian owners, navigation, fishing or other uses of the area; the ability of the site and surrounding areas to support ecologically significant flora and fauna; or the use or enjoyment within 1,000 feet of municipally, state or federally owned beaches, parks, or docking facilities. The Commissioner must also determine that the applicant has demonstrated that there is an available source of organisms to be cultured for the lease site.

A public hearing on this application was held on February 27, 2001 at 7:00 p.m. in Falmouth.

**Evidence Concerning the Nature and**

**Impact of the Proposed Lease**

Tollef Olson, the owner, and his business partner Craig Tanner represented Aqua Farms Limited Liability Company (LLC). Each provided testimony on the application. Exhibits 1 and 2.

The representative, Mr. Olson, described his background, which includes fishing and maritime experience, aquaculture and the history of Aqua Farms LLC that began in 1998. Mr. Olson testified that the proposed lease would have the same raft configuration and operational activities as a similar type of limited-purpose lease the company holds that is located near Bangs Island in the town of Cumberland. The company also holds a seed mussel lease near the mouth of the Presumpscot River in Portland. Exhibits 1 and 2.

Mr. Olson testified that three tandem 40' x 48.6' rafts with approximately 50' spacing between each raft would occupy a surface area of 220' x 40' centered within the proposed lease dimensions of 580' x 125'. The remainder of the proposed area would be required to contain the moorings. Eighteen beams span each raft and support up to 540 total dropper lines (18 beams x 30 droppers per beam). Dropper lines are 35' lengths of rope that seed mussels are mechanically attached with a biodegradable mesh. The source of seed mussels would come from the applicant's existing leases. The rafts have a 2.5' freeboard before, and approximately 1' profile after, the lines and seed are attached. A photo was provided of an unseeded raft under tow. A 30' - 35' deep predator net with a 4.5" mesh would be used seasonally or as necessary to deter sea ducks. He testified that no auditory predator control devices would be used above or below the waterline. In his opinion the sub-surface auditory devices have not been found to be efficient, therefore would not be used. Exhibit 4.

The four outer corners of the 3-raft system would be moored to 8,000-pound granite blocks plus 1,000 pounds of chain. Mr. Olson's partner, Mr. Tanner, testified that this set-up has held the rafts at Bangs Island in a 60-knot wind without any shifting or dragging. The granite blocks would be connected to 60' of one-inch chain and 120' of 1¼" poly plus mooring line or professionally approved equivalents. Mr. Olson testified that, using the described mooring system, a boat with a 3-foot draw would be able to pass within 20' - 25' of the ends of the rafts over the mooring lines. He requested that the boundary markers be limited to the corner moorings to reduce interference with other users in the area.

The proposed lease would be accessed using a 34' lobster boat from a private mooring in Simonton Cove in the summer, DiMillo's marina (in Portland) in the winter, or via a 22-foot Carolina skiff that would be transported by trailer and launched from the commercial ramp at Portland's East End (over 2.5 miles due southwest) or from the South Portland public boat ramp. The smaller vessel would have a quiet 4-stroke, 90 horsepower engine. Mr. Olsen testified that all activities would take place during daylight hours. The site would be visited every other day or, in general, 3 – 4 times weekly, year round. The frequency on site may be greater during harvest activity. During harvest a small hydraulic winch, powered by an 8 horsepower Honda engine, would be used to lift the dropper lines. Mr. Olson stated that the winch would not be very noisy and compared it to making less noise than the average lawn mower. He testified that the winch would be run 2 – 6 hours when in use. The days of use for harvesting would be variable from up to 5 days in a row to long periods of no use.

Mr. Olson testified that the proposed lease is approximately 1300' from the nearest shore on Clapboard Island. The proposed lease is situated approximately 200' east of a ledge denoted by three stars with a 3' depth mark on the local nautical charts in water depths of 47' at mean low water to 59' at high water. Mr. Tanner, who grew up in the area, and Mr. Olson, who is from Maine and has lived locally for many years, each testified that they are very familiar with the area and that the adjacent ledge is well known to local mariners as a hazard to avoid. The ledges were described as difficult to see other than at low tide and at high tide are awash in only 6" of water. In Mr. Olson and Mr. Tanner's opinions, the proposed site location would not interfere with navigation, given the combination of the proximity to the hazardous ledges and the small footprint of the surface structures.

Mr. Olson testified that he and his partner, Mr. Tanner, have observed very little fishing activity, no dragging for scallops, no sport fishing and only one lobster trap buoy within the proposed boundaries that were marked during the past year. A letter from the Harbormaster in the application indicated that there is limited lobster fishing within the proposed lease area. The

nearest existing leases are held by the applicant, Aqua Farms LLC, located off Bangs Island, Cumberland due northeast (~ 4.5 miles) and near the mouth of the Presumpscot River, Portland due southwest (~ 3.4 miles). A third lease is located in Wreck Cove, Long Island due southwest (~ 2.8 miles).

Mr. Olson testified that, based on diver observations, the bottom sediments are mud adjacent to the ledge. Mr. Tanner reported that during a diver survey on March 23, 2000, he found 2 scallops and a limited amount of lobster burrows. Mr. Olson testified that shellfish populations, such as mussels, are beneficial to, and are an integral part of, a healthy marine environment. Near maturity the quantity of mussels growing on an individual raft would filter 24 million gallons of water per day. The mussel feces would be dispersed over the bottom below the rafts to become food for benthic worms and fish. Clearance between the bottom of the dropper lines and the sea floor would be 10' - 12' and 9' on an extreme low tide. In Mr. Olson's opinion, the proposed lease has adequate current flow to provide sufficient food from the water column and also provide dispersal to prevent any build up of sediments beneath the rafts. A letter from the Department of Inland Fisheries and Wildlife (IF&W) was included in the application. The IF&W regional biologist indicated that the location of the proposed lease would not interfere with wildlife such as seabirds or terns.

All gear would be checked routinely when working at the proposed lease to recover any dropper lines or gear that should break off the rafts. Based on Mr. Olson's experience at the Bangs Island site, lines that break off fall directly to the bottom beneath the raft, due to the weight of the attached mussels, and are unlikely to migrate any distance. Mr. Olson testified that any errant gear would be promptly recovered.

Mr. Olson testified on the number of businesses that the proposed lease would positively impact similar to how the existing leases have provided economic benefits. He also pointed out a number of existing commercial uses that currently exist in Casco Bay that the proposed operation is compatible with. He testified that lobster fishing and recreational sport fishing would

be allowed within the open areas of the proposed lease. During the past year, while the proposed lease was marked with buoys, he observed one lobster trap set within the proposed boundaries, no scallop dragging, sport fishing or other activity in that location. Mr. Olson indicated that should any lobster fishing gear become tangled in the moorings, he would untangle it promptly.

Mr. Olson testified that he and his partner Mr. Tanner prefer to use the 3-raft system and not expand an individual operation to larger than 3-rafts. In his opinion, a system of this size has a balance of the aquaculture intent, ecology and has an unobtrusive appearance. He stated that he does not have plans or intentions to expand at the proposed lease site or existing leases. Mr. Olson testified that nighttime lights would only be used if required by the regulatory authorities, the US Coast Guard (USCG) or Army Corp of Engineers (ACOE).

A biologist employed by the Department testified on observations that he made during a visit to the proposed lease on October 6, 2000 and the information in the Department's report. The biologist testified that he confirmed the geodetic coordinates of the site location using a survey quality differential Global Positioning System (dGPS). The biologist testified that, based on the traditional method of using dividers on a nautical chart and plotting the dGPS coordinates in geographic information system (GIS) based ARCVIEW software, he estimated that the distance to the nearest point on Clapboard Island is between 1,400 – 1,500 feet. The distance to the adjacent ledge is 200 – 250 feet. Approximately one mile of open navigation channel lies due east of the proposed lease. In the biologist's opinion, the proposed lease would not impede navigation due to its proximity to the ledges that are a natural pre-existing navigation hazard and the full mile of navigable waters to the east. Exhibit 3.

During the site visit, one trap buoy was observed just within the northern end of the proposed lease. Approximately 10 – 15 trap buoys were observed south of the proposed site, 5 near Clapboard ledges and approximately 50 to the east and north, well beyond the proposed boundaries.

The proposed lease is not located within 1,000' of any public facilities and it is located within an area open to the harvest of shellfish.<sup>1</sup>

The landowners of Clapboard Island and their legal Counsel testified in opposition to the proposed lease. In the landowner's opinion, the federal and state reviewing agencies have not adequately reviewed the proposed lease for interference with endangered species, which they tentatively identified as a roseate tern observed on the island or ledges south of Clapboard Island. A study was requested on the use of 4-inch predator nets. They oppose the use of audible predator control devices. Concern was also expressed that the mussels raised at the proposed lease would be negatively impacted by overboard discharges and bottom paints used by the approximate 800 – 1,000 boats moored off the Falmouth shore at the Portland Yacht Club. Their foremost concern is interference with the "view corridor" from their house on Clapboard Island, particularly from a porch on the front of the house, which would negatively impact the property value. The proposed lease would also contribute to a term referred to as mooring creep. The landowners indicated that the proposed lease is closer to the island than estimated due to the 50' elevation of the island, however the landowner stated that the property deed does not include the ledges beyond the island nor is the island zoned. They also expressed concern that the proposed lease would negatively impact recreational boating in the area. Exhibits 5, 6 and 7.

A representative from the Army Corp of Engineers (ACOE) testified that the applicant is required to apply for an ACOE permit and to the USCG for their marking requirements. He indicated that the marking requirement suggestions at the hearing would be conveyed to the USCG through their permit review process. Regarding concerns about the proposed lease and proximity to endangered or threatened species habitat, the US Fish & Wildlife Service (USF&W) and the National Marine Fisheries Service (NMFS) have reviewed the lease proposal under the

---

<sup>1</sup> Pursuant to DMR Regulation 95.03C, Closed Area No. 14. Portland-Falmouth Area, effective February 2, 2000 the area of the proposed lease is classified as open approved for the taking of shellfish.

ACOE permit review process and they had no objections. The ACOE representative testified that he would reconfirm this information with the federal reviewing agencies.

One local lobster fisherman testified that he was opposed to the granting of aquaculture leases and expressed concern about losing bottom to leases in his area. He testified that the proposed lease is a spot for sheddies in June through August. He stated that he would fish 3 – 4 ten-trap trawls in the proposed lease area. In his opinion, the proposed lease should be located elsewhere.

A Falmouth resident, sailor and businessman who operates a marine facility on the Falmouth shore about 1¼ mile due northwest of the proposed lease beyond Clapboard Island, testified in opposition to the proposed lease. He testified that sailboat racers draft on, or cut in close to, the ledge next to the proposed lease when racing. The racing season runs from mid-May through October. In his opinion, the area is heavily traveled particularly due to the large number of vessels moored off the mainland at Falmouth Foreside. In his opinion, the four 8,000-pound moorings would not be adequate to hold the 3-raft system. He suggested another spot such as Basket Island.

Another local resident and active boater expressed concern about marking of the proposed rafts as there are many persons who travel the waters of the area at night between the larger inhabited islands and the mainland. He testified that normally when navigating the area, he gives the ledges a wide berth; therefore lighting on the proposed rafts would be helpful to nighttime navigators. He agreed that a suggestion to use 180° shielded lights, visible from the east side of the ledges would be a good idea. He compared the proposed rafts to an overnight anchorage, which are required to display mooring lights.

A Portland resident with a background in the Marine trades, currently working as a marine mechanic, who writes for National Fishermen and who is an organizer for the Maine Canoe and Kayak racing organization, testified in support of the proposed lease. In his opinion, the applicant should be allowed the opportunity to try the proposal for the three-year term. Aquaculture should

be supported due to the decline in fish stocks worldwide. He testified that he is an avid boater and is familiar with the proposed lease site. He stated that the proposed lease would not pose interference for navigation, particularly to competent captains navigating their craft. He suggested that the rafts have a rattler or noisemaker of sorts to caution mariners in the fog.

### **Findings of Fact**

The proposed lease site is located between 1,300 – 1,500 feet from the nearest shore, which is on Clapboard Island due west of the proposed lease. There is a ledge approximately 200 – 250 feet due west of the proposed lease. The ledge is between the proposed lease and the eastern shore of Clapboard Island. The applicant testified that he would gain access to the proposed lease from several public or private facilities in Portland or South Portland. No request was made nor any requirement described that the applicant would need or desire access to Clapboard Island. Given that there are no riparian lands within 1,000 feet of the proposed lease, that no use or access to Clapboard Island (located 1,300 – 1,500 feet across a prominent hazardous ledge) was requested, I find that the lease will not unreasonably interfere with the ingress and egress of riparian owners.

According to the evidence, the proposed lease is located in 47 feet of water at mean low water, approximately 200 – 250 feet east of a locally recognized hazardous ledge. The raft structures would occupy a surface area of 220 by 40 feet within a 580 by 125 foot area. The site was chosen in part due to the cautious distance usually afforded the area by boaters because of this ledge. According to the biologist's report, there is at least a mile of navigable water on the opposite side of the proposed lease away from the ledge and there is therefore ample room to navigate the area. Concerns were expressed that the proposed lease would compound the number of moorings along the Falmouth shore and interfere with navigation of the 800 – 1,000 plus boats and yachts moored at that location over 1¼ mile due west of the proposed lease and west of Clapboard Island. Concerns were expressed that the location would interfere with sailboat races whose participants intentionally navigate within close proximity to the ledges to



take advantage of reduced currents. The local harbormaster indicated that the area is not heavily used by lobster fishermen, however requested willingness by the applicant to move the structures if there is future interference with navigation by commercial or recreational fishermen.<sup>2</sup> Given the close proximity to a recognized hazardous ledge, with at least a mile wide navigation way opposite and east of the ledge and proposed lease, I find that the lease will not unreasonably interfere with navigation in the area.

The applicant's representative and partner testified that the area of the proposed lease has very limited lobster fishing and no dragging activities. This was confirmed in part by the harbormaster; that the lobster fishing in this area was light. A local lobster fisherman opposed the loss of bottom to an aquaculture lease. The applicant's representative testified that lobster and recreational fishing and boating would be allowed within the proposed lease and should any gear become entangled in the moorings it would be promptly untangled. The representative requested that dragging not be allowed.<sup>3</sup>

According to the biologist's report, the area is classified as open/approved for the harvest of shellfish. There are three existing aquaculture leases in Casco Bay approximately 2.8, 3.4 and 4.5 miles distance from the proposed lease according to Department records. Based on the evidence that lobster and recreational fishing would be allowed, the applicant's willingness to clear lobster gear entanglements in the raft moorings, and that there are no existing leases within the immediate vicinity of the proposed lease, I find that the lease will not unreasonably interfere with fishing, aquaculture leases, or other uses of the area.

The mussels would be obtained from Maine sources. No request was made to drag or dredge seed mussels from wild beds and no bottom planting of mussels was requested. The

---

<sup>2</sup> Note, movement of gear can only take place within the confines of a lease boundary.

<sup>3</sup> Pursuant to 12 MRSA §6957, dragging is prohibited within 300' of the structures used for aquaculture if that area is marked in accordance with that statute.

proposed lease has adequate water depths and other favorable characteristics to raise the blue mussel as described in the record. According to a letter in the application from the State Department of inland Fisheries and Wildlife and testimony by a representative from the US ACOE on the opinions by the US F& WS and NMFS reviewing agencies, no interference with endangered, threatened or significant species was anticipated by the proposed lease activities. Based on this evidence, I find that the proposed activities will not unreasonably interfere with the ability of the site and surrounding areas to support ecologically significant flora and fauna. Seed blue mussels would be obtained from the applicant's two existing leases in Casco Bay. Based on this evidence, I find that there is an available source of blue mussels.

According to the charts in the record, the nearest public facilities are on the mainland shore in Falmouth or Portland. The Falmouth shore is approximately 1¼ -mile due west beyond ledges and Clapboard Island. The applicant's representative testified on the number of public and private facilities available for commercial users in Portland and South Portland, which he has actively used in the past to service the existing leases. Based on the evidence, I find that the proposed lease will not unreasonably interfere with public use or enjoyment and that the site is not located within 1,000 feet of any municipally, state or federally owned beaches, parks, or docking facilities.

### **Conclusions of Law**

Based on the above findings, I conclude that:

1. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner;
2. The aquaculture activities proposed for this site will not unreasonably interfere with navigation;
3. The aquaculture lease activities proposed for this site will not unreasonably interfere with fishing or other uses of the area, taking into consideration the number and density of aquaculture leases in the area;
4. The aquaculture lease activities proposed for this site will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna;

5. The applicant has demonstrated that there is an available source of blue mussels; and
6. The aquaculture lease activities proposed for this site will not unreasonably interfere with public use or enjoyment within 1,000 feet of municipally, state or federally owned beaches, parks, or docking facilities.

The evidence in the record supports a finding that the proposed aquaculture activities meet the requirements for the granting of an aquaculture lease set forth in 12 M.R.S.A. §6072-A.

### **Decision**

Based on the foregoing, the Commissioner grants the requested limited-purpose commercial lease of 1.66 acres to the applicant for a period of three (3) years from the date of this decision for the purposes of cultivating blue mussels using a three raft system for suspended cultivation techniques. The applicant shall pay the State of Maine rent in the amount of \$50 per acre per year. The applicant shall post a bond or establish an escrow account in the amount of \$5,000 conditioned upon its performance of the obligations contained in the aquaculture lease documents and all applicable statutes and regulations. A limited-purpose lease for commercial aquaculture research and development conveys only those rights specified in the lease.

### **Conditions to be Imposed on Lease**

The Commissioner may establish conditions that govern the use of the lease area and impose limitations on aquaculture activities. Conditions are designed to encourage the greatest multiple, compatible uses of the lease area, while preserving the exclusive rights of the lessee to the extent necessary to carry out the purposes of the aquaculture law.

The following conditions are placed on this lease:

1. lobster/crab and recreational fishing and boating are allowed on the open areas of the lease;
2. the required lease markings shall be limited to marking of the moorings and structures in accordance with U.S. Coast Guard requirements; and
3. the leaseholder will clear all lobster gear that becomes tangled with his equipment when the owner identifies his equipment to the leaseholder.

The Commissioner may commence revocation procedures if he determines that substantial aquaculture has not been conducted within the preceding year or that the lease activities are substantially injurious to marine organisms. If any of the conditions or requirements imposed in this decision, in the lease, or in the law are not being observed, the Commissioner may revoke the aquaculture lease.

Dated: \_\_\_\_\_

\_\_\_\_\_  
**George D. Lapointe (Commissioner)**  
**Department of Marine Resources**